

# MEDIA ART EXPLORES IMAGE HISTORIES: NEW TOOLS FOR OUR FIELD

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The starting point of the following comparisons is the visual manifesto of knowledge, L'Academie des Sciences et des Beaux-Arts, Sebastien Le Clerc created in 1698; here is a print from the Göttsweig Graphic Collection. L'Academie can be described as summa of the grand project of mathematizing nature as propagated by Descartes and Newton.

This digitization of a print, which can be magnified some sixteen thousand times, enables new access to the 'dead medium' of graphic prints and allows us to discover details that are barely recognizable in the original, for, to paraphrase Wölflin, "one only looks at for what one is able to see," in order to make new questions and answers possible.

Nested against a background of magnificent architecture, Le Clerc presents the grand spectrum of arts and sciences disciplines: mathematics, mechanics, physics, astronomy, music, anatomy, and philosophy are clearly recognizable. A great deal has been written about this work; I focus on the visual media, which commentators so far have ignored. Interestingly, today as we seek to understand the revolution concerning our visual perception, it is these visual media in Le Clerc's picture that have been picked up by artists.

When we zoom into the image, we see that Le Clerc's summa is also a collection of the optical media of his time, like in a burning mirror: the physiological basis of spatial vision is represented as well as central perspective, with which this drawing aid also refers to the vellum used by Dürer.

## **ANAMORPHOSIS**

The anamorphosis, described by Lacan as the "reversal of central perspective," came to the West from China in the fifteenth century and subsequently developed into a variety of sub-techniques. Severely distorted objects could either be transformed into a recognisable image by using a cylindrical mirror or by viewing them from an acute angle. These images, which could only be experienced, so to speak, interACTIVELY could be regarded as precursors of today's processual images.

For years William Kentridge, one of the most known artists of our time, has been working around the subject of vision. Even historic image media, like the mirror anamorphosis, made its way into his contemporary media art. In 2007 he created a hybrid that had not existed before in the media history of seeing: using his eight minute short *What Will Come (Has Already Come)* he links a hand-drawn animation film with the anamorphosis, which appears connected now for the first time with moving images.

To get an accurate picture of what the distorted pictorial metaphors contain, Kentridge lets us use a metal cylindrical mirror: newsreel images of a colonial war Fascist Italy fought in 1935/1936 in Ethiopia. Kentridge, who comes from a South African Jewish family, fuses descriptions of the war with poetically

floating projections of memories to create a parable about violence — a revolving carousel of images like a visual maelstrom with the power to pull the observer in.

Kentridge gives us a bitter truth in a sugary pill: “Those who cannot remember the past are condemned to repeat it” (George Santayana), a pleasurable deception that we experience naively and at the same time knowingly. Kentridge’s video is not a film in terms of any time sequence, but rather a collage with, in part, hermetic elements, which overlap and are used by Kentridge as the vehicles of ambivalent, secret, even magical messages; perhaps inspired by Baltrusaitis’s description of the uses of anamorphosis in the course of history.

Kentridge, as we know, photographs different stages of his charcoal drawings for the animation, that is, he adds new details and erases others, working on the relatively small number of twenty to forty drawings per film, and what remains represents the final version of a scene — over a layer of drawings that have been re-worked several times. Kentridge expands the anamorphosis as a medium in two ways: firstly, he draws 'distortedly' with the aid of a cylindrical mirror after the classic manner of anamorphic depictions to obtain the desired proportions. Secondly, with his innovative crossing of anamorphosis and animation Kentridge also expands the possibilities of film: what Gunning claimed for Kentridge’s *Stereoskop* in 2001 — a “running metamorphosis” — is clearly ramped up in *What Will Come*. Kentridge not only succeeds in creating a space of distance and of thought through citing the historical anamorphosis; he also develops a media hybrid, which challenges the observer to become aware of their own active role in the production of images. In order to experience the complex, dynamic, and heterogeneous image space, the observer must become physically active — consequently, Kentridge exposes the iconicity of the image, if you like, which only arises through perception — in this case, in the anamorphic process.

It is not surprising that Kentridge develops his artistic approach in a time where the world of images around us is changing faster than ever before: images are advancing into new domains, to new private platforms like YouTube; Flickr, with its billions uploads; or Facebook, that has received his 700 millionth member and is now the largest image archive in the world. Television became a zappy field of thousands of channels; now in 3D — and 3D experiences as we know are having a renaissance in Cinema as well — here you see previous booms of 3D in cinema's history. Large projection screens are invading our cities, buildings' surfaces meld ever more often with moving images, so that the old dream of talking architecture gets a new arsenal of options; cell phones transmit movies in real time; and *Google StreetView* and *Google Earth* step up the concepts of panoramic image spaces including Satellite views, for example of our Center for Image Science in *Göttweig*.

All this, let's say virtualization, requires a so far unknown material base: Google runs, for example, one million servers in a dozen of countries, even on the ocean, and processes twenty four Peta Byte of user generated data per day. The several million people who died in the race for conflict minerals — here you see a new one hundred Gigaheart IMB Graph Chip — did not even receive a monument of the unknown victim. Digital images became ubiquitous and key tools within the global reorganization of work, but these transformations have hit society to a large extent unprepared. I will not go deeper into that but some results of our research you can find in a newly published volume by MIT Press.

In our most recent present artists venture in a reflective manner towards new measurements of the complex status of seeing and creating images. Images' historical development between innovation, reflection and iconoclasm reaches in the 21st century a new level of global complexity. In the "mine of media history" and the history of image techniques new thinking spaces (Denkraum) are created through new interfaces, displays, hard- and software configurations, often engaging viewers in a form of playful, creative combination. The Media Arts landscape of recent years is being increasingly seized by a phenomenon which has yet not received any significant research, classification or analysis: the use of historic media configurations as an integrated part of contemporary media art installations. There are internationally renowned artists today who create optical experiments, panoramas, phantasmagoria, perspective theaters, camera obscura, anamorphoses, magic lanterns, etc. By reinterpreting old optical media they contextualize our digital image revolution, create distance and with that thinking spaces.

## **PEEP SHOW**

Lynn Hershman provided us with an early glimpse in 1993 with *A Room of One's Own*, a voyeuristic, 'peep-show-like-look' into a miniature bedroom. Through a periscope at eye level on a large black box, the observer directs the progress of the installation interactively by eye movements, by the gaze. This set-up allows Hershman to use the installation, which connects the design of a modern-day sex peep-show with its historic forerunners; to interrogate forcefully the tense, even violent relationship between the female model depicted inside and the presumingly male observer looking in.

The contemporary peep-show, which unites illusion and the quick and furtive look, could perhaps stand for the male, but increasingly also the female, gazing at pornography on the Net; statistically the most frequent use of the Internet, but for academic cultural disciplines still by-and-large a taboo.

## **CAMERA OBSCURA**

In a walk-in "Camera Obscura for Danube" on a cable ferry, installed in 2004 by Olafur Eliasson, passengers see the cultural landscape outside going past on large screens. Although looking like video displays, they employ no electronics whatsoever. At the centre of Eliasson's artistic intention are the users of the ferry, the observers who find themselves inside a machine for seeing that is also a time machine. We know that art and image history owes much to the camera obscura and since Cray there is no need to add anything further including the walk-in variety. Like the visitors at the fairs of yesteryear, the present-day passengers are amazed at how the images of the surroundings outside are generated and this fosters awareness of the Wachau cultural landscape and thus also the dimension of time. A long time aesthetically designed space becomes through Eliasson's modest, but highly precise, intervention acute.

## **PANORAMA**

The panorama, the illusionistic medium par excellence, has enjoyed a revival in media art over the last twenty years in many installations. Here you see world wide exhibited art works from the early nineties by Maurice Benayoun, Michael Naimark, Luc Courchesne and Jeffrey Shaw and their teams; Shaw has been working for decades with immersion and has been using the term Panorama for about fifteen years now. Here, we have another recent interactive, real-time example featuring Melbourne, *Place-*

*Urbanity*. Users can explore fifteen panoramic scenes of different urban districts that are each home to a specific immigrant or ethnic community.

Whether consciously or unconsciously these artists, as we know today, all refer back to a historic ancestor in the history of art and the media: the 1787 patented panorama. Originally conceived as a new tool of visualization for military reconnaissance, Robert Barker's invention with its circular perspective soon became a mass medium that reached several hundred million people. In a manner reminiscent of modern fears of simulator sickness, the panorama was criticized around 1800 mainly for psychological reasons. It was argued that the illusion could result in an inability to perceive reality and the military leaders of France and England, Napoleon and Lord Nelson, soon realized the panorama's potential as a medium for propaganda.

The amalgamation of traditional Japanese culture – like Zen, Kabuki or Sensui ink painting – with the digital has for years been the goal of Kyoto based Professor Naoko Tosa. Here you see her *Interactive Zen Garden*, which makes us reflect on the comparison of Digital Culture with our traditions, so that conscious ZEN practice, the meditation reappears in contemporary culture – but her discourse between tradition and technology is now driving panoramas history into an unheard dimension. For the upcoming world EXPO 2012 in Korea, Tosa is planning to bring the lineage of huge impressive-immersive pavilions you find in most world fairs with the latest technology to a new level. Tosa's installation *Under Water Sansui with Four Gods* will transpose visitors into immersive 360° projections; a gigantic 250m long landscape wall-panorama, composed of projections of dynamic Sansui ink paintings, each measuring 20m high. Additionally, people walk under enormous flying dragons, which dominate the ceiling, consisting of a gigantic LED display, 23m wide and as long as 2 and a half football fields – imagine!

## SHADOW PLAY

The enormous worldwide and especially European tradition of Shadow Play, has inspired Rafael Lozano-Hemmer, one of the most well-known contemporary artists. Indeed, Hemmer has written that he was inspired by Samuel van Hoogstraten's 1675 published *Shadow Dance*, from his book *Inleiding tot de Hogeschool der Schilderkunst*. For over a decade, Hemmer has created multifaceted versions of an interactive shadow theatre through a combination of the spatial relationships of visitors. Recently this development culminated in the installation *Sustained Coincidence - Subsculpture 8*, which forms overlapping shadows of the interactors by reactive light bulbs.

## LATERNA MAGICA/PHANTASMAGORIA

In the case of the laterna magica, as I'm sure you know, we come to 'the' projection technology of the modern era, forerunner of cinematography, and — if you like — the video projector in this lecture hall which provides our images.

It is a remarkable fact that since the beginning of the new millennium the most extreme variant of the laterna magica is staging a comeback: the phantasmagoria, an image machine developed after the French Revolution, nowadays reflected by artists like Zoe Beloff, with her *Influencing Machine*; Rosângela Rennó, here with her 2004 *Experiencing Cinema*; Toni Oursler's *Influence Machine*; or works by Gary Hill or Laurie Anderson; all artists who do not have to fear competition with artists using

traditional art media, still preferred by the art market.

Not only that, but the Phantasmagoria has also reappeared in pop-culture; recent and spectacular examples are projections of ghosts in the Hollywood productions *The Magician* and *Inglourious Basterds*. In the latter, the freshly murdered owner of a Paris cinema – whose parents were also killed by the Nazis – appears in a burning cinema to the trapped people – all of them top Nazis – as a large projection; first on the cinema screen, then in the classic phantasmagoric manner on fire smoke, here as avenging angel.

A new variant of this media-art historic lineage was created in just the last few years by Jeffrey Shaw and Sarah Kenderdine with *UNMAKEABLELOVE* in their cybernetic theatre *Re-Actor*. *Re-Actor* is a real time augmented reality application using torch-interfaces to reveal a world of thirty humans, inspired by Samuel Beckett's *The Lost Ones*, though of course its allusions draw much wider to the human tragedies of the last century. Shaw himself mentions as an inspiration early cinema history, quote: “the myriad of extraordinary devices like the Lumiere Brothers Photorama, the Cyclorama, Cosmorama, Kineorama, Neorama, Uranorama [..]” etc. Here, they combine interaction not with a 3D humanoid but phantasmagoric figures, who seem to move in a dark space or even a prison camp formed by a hexagon of six rear-projected silver screens for passive stereo viewing. This results in the most powerful re-appearance of the phantasmagoria: a deprivation, maybe even an icon for we human's in a WEB 2.0 world of 'connected isolation.'

Our Archives of Digital Art count many Media Art works, which are, for example, part of the history of immersion, a recently recognised phenomenon that can be traced through almost the entire history of art in the West. History has shown that there is cross-fertilization between large-scale spaces of illusion that fully integrate the human body (360° frescoes, the panorama, Stereopticon, Cinéorama, IMAX cinemas, or the CAVEs) and small-scale images positioned immediately in front of the eyes (peep-shows of the 17th century, stereoscopes, stereoscopic television, Sensorama, or HMDs).

## CONCLUSION

Against the backdrop of the image revolution, today renowned artists are engaged in an ongoing endeavor to gauge the spectra of how images act as well as the continual transformation of how we see. Artists investigate how our gaze can be focused and concentrated, or diverted and dispersed; they analyze how we can be mesmerized, perhaps even ensnared, as well as how we can extricate ourselves from this clasp. Based on impulses from the history of perception, media artists today develop emancipatory strategies. This is in order to characterize how the gaze is constituted and to outline the inter-linked quantities of fiction and that which we call reality; between illusion and that which we could term 'pure seeing,' that acts in an enlightened and media-competent manner and exists at most as an abstract goal.

In the new millennium some of the important artifacts from the history of image machines are being mined for the artistic experiments of contemporary art: the magic lanterns and their offspring, the phantasmagorias, are being revived to produce magical, psychological, and eerie effects and atmosphere, and the wide open views of the vedute and panoramas are also making a comeback. Media artists frequently vary them, and reflect and recombine them in the interests of the viewer. The rectified images of the anamorphoses are again being used to convey political messages. What all these image machines have in common is that they are not being utilized for wistfully nostalgic historicism or for one

of the models of the evolution and advance of media development; rather, the artists are investigating the conditions and strategies of generating images and how these are perceived.

Reflection on art, on the aesthetic experience and the act of seeing in general, requires, as Cassirer, Warburg, Panofsky, Merleau Ponty and recently Hal Foster pointed out, DISTANCE. Often experimentally, the artists create new spaces for thought, not only to reflect on image media of the past, but more — it is to be hoped — on the circumstance that the fusion of digital technology with the apparatuses from art and media history will succeed in tracking down, arresting, and rendering comprehensible a piece of the present that has slipped from our grasp due to the distanced position we have taken up.

As we know, mass communication via audio-visual media is regarded as an achievement of the last century, yet the contemporary forms and formations are the result of complex historical processes that go back much further in time to the early modern age; already by the mid nineteenth century technologies, distribution methods, and configurations had developed that catered for mass audiences. Media Art, by definition, is, as we know, a relative term that has experienced transformation over time and currently counts digital media art as its newest representative. Today, film, cinema, and even television are regarded as 'old' media, because the image industries offer new media generations at ever shorter intervals — with the modern and post-modern eras quasi in the rear-view mirror. Although the dominant status of these media ensure that they are increasingly involved in creating collective 'reality' and are therefore rarely the subject of public inquiry or debate themselves, slowly but surely their supremacy is waning and the pre-history of the visual mass culture of the twentieth and twenty-first century is surfacing.

All this sounds like redefining images in their historical dimension and approaches of comparison, which go along with that, are based on the insight that images act diachronic, within a historical evolution and not function simply without reference. Image Science, or Bildwissenschaft, now allows us to write the history of the evolution of visual media, from peep-show to panorama, anamorphosis, stereoscope, magic lantern, films with odors and colours, cinéorama, IMAX, and the virtual image spaces of computers. It is, let me underscore, an evolution with breaks and detours; however, all its stages are distinguished by a relationship between art, science, image and media.

Let me now, in the second part, address elements of the development of media art research and scientific tool building our field needs.

We know that media artists today are shaping highly disparate areas, like time based installation art, telepresence art, genetic and bio art, robotics, Net Art, and space art; experimenting with nanotechnology, artificial or A-life art; creating virtual agents and avatars, mixed realities, and database-supported art. These artworks both represent and reflect the revolutionary development that the image has undergone over the past years.

Over the last forty years Media Art has evolved into a vivid contemporary factor, Digital Art became 'the art of our time' but has still 'not arrived' in the core cultural institutions of our societies. Although there are well attended festivals worldwide, funded collaborative projects, discussion forums and database documentation projects, Media Art is still rarely collected by museums, not supported within the mainframe of art history and nearly inaccessible for the non north-western public and their scholars.

Even if today Media Art, with its multifarious potential of expression and visualization, which thematizes

complex challenges of our societies like globalization, knowledge explosion, genetic engineering, ecological crises etc. quantitatively is dominating the art schools – Media Art is almost ignored by most museums, the acquisition and maintenance can still not compete with traditional art media. Thus, due to the fast changes in storage media, works that originated approximately ten years ago can normally not be shown anymore. It is no exaggeration to state that we face the TOTAL LOSS OF AN ART FORM from the early times of our postindustrial-digital societies.

Media Art therefore needs – as most of us know – as many bridges into our societies as possible: conferences, text repositories, database projects developing collective documentation and preservation strategies – new thesauri and new curricula for the next generation of teachers, artists and collectors.

Image Science and Media Studies help understand the function of today's image worlds in their importance for building and forming societies. With the history of illusion and immersion, the history of artificial life or the tradition of telepresence for example, Image Science offers sub-histories of the present image revolutions. Image Science, or Bildwissenschaft, is an open field that engages equally with what lies between the images and with the new perspectives resulting from interplay with neuroscience, psychology, philosophy, emotions research and other disciplines. Image Science might be considered as a reservoir in which contemporary processes are embedded, like an anthropologic narration, but as well the 'political battleground,' where the clash of images is analyzed.

Already in the 90s it became clear, that Media Art Research is spread over many disciplines and more and more the need became urgent to give it some common ground. That's why Media Art Histories held its first international Conference *Refresh*, for which I served as its chair. In 2005, through a collective process, involving thirty advisors and a dozen session chairs, co-ordinating meanwhile far more than a thousand papers, in co-operation with Leonardo and New Media Centre, *Refresh* represented the wide array of nineteen disciplines involved in the rapidly emerging field of Media Art Histories – some of the results you can find in an anthology from MIT Press. The good news is, through the success of *re:place* 2007, in Berlin's House of World Cultures, the conference series could be established, so that after Melbourne 2009, Liverpool later in September and Riga 2013 are on their way – so you are invited to show up there too.

Building Bridges for Media Art means also to further the establishment of new curricula, as we developed the first international Master of Arts in Media Art Histories – with faculty members like Erkki Huh-tamo, Lev Manovich, Christiane Paul and Sean Cubitt – which deals also with the practice and expertise in Curation, Collecting, Preserving and Archiving of Media Arts. It's a Masters for media art's working professionals, the average student is thirty five years old and they come now from five continents; in the meantime a Facebook forum with more than 2900 members also exists.

The field of Media Art Histories, which overlaps with image science, examines the sub-histories of media art: paradigms like artificial life/Automata or telepresence, the history of panoramic perception and its knowledge with the related history of immersion and the history of projection for example. So, the method of comparison, which is based on the insight that images act diachronic (but not teleological) within a historical evolution –with detours and contradictions, in the sense of Gould, but never, as Warburg pointed out, function without reference – is a central pre-condition to deal with media art. Image science is based on three pre-conditions: 1. definition of the object, 2. setup of an image archive and 3. familiarity with a large quantity of images. Analogies or fundamental innovations in contemporary phenomena can be discerned through historical comparison, allowing us to differentiate and to distance

ourselves from the phenomenon, so archives became again an integral element in Media Art Research and Image Science.

We know that Darwin's work *The Expression of the Emotions* inspired Warburg's *Mnemosyne* image atlas of 1929, which remained a fragment. The Atlas tracks image citations of individual poses and forms across media and, most significantly, independent from the level of art niveau or genre. We may even say, that Warburg redefined art history as medial bridge building by including many forms of images.

Although taking a different approach, the history of image databases should also mention André Malraux with his *museé imaginaire*. Now, we are witnessing the birth of the virtual museum as a key project for the Digital Humanities.

But let us watch for a moment beyond the Humanities.

In the natural sciences during the last decade large collective projects could address new research goals as in Astronomy, the 'Virtual Observatory' compiles centuries worth of celestial observations; global warming is understood with projects like the Millenium Ecosystem Assessment, at a detail never before calculable, and the Human Genome Project has already become legend. So far, unknown collective, international and sustainable structures enable science to give answers to complex problems.

Comparable with natural sciences, digital media and networked research catapult the humanities within reach of new and essential research tools. Linux and Wikipedia might be seen as a glimpse what can be possible, and what we need are collective documentation and preservation tools for media art, or, even better tools, which can manage an entire history of visual media and their human reception by means of thousands of sources. These themes and needs express, in regard to image revolution, key questions for the humanities today.

In 1999 we established at Humboldt University the first online media art documentation, the Database of Virtual Art. As pioneer, it has been documenting – in cooperation with renowned media artists, researchers and institutions – the last decades of digital installation art, as a collective open source project. Since today's digital artworks are processual, ephemeral, interactive, multimedial, and fundamentally context dependent, because of their different structure, they required a modified, we called it an "expanded concept of documentation."

As probably the most complex media art resource available online with several thousand documents and their technical data, more than two thousand listed articles and a survey of seven hundred and fifty institutions of media art, the database became a platform for information and communication. The system allows artists and experts to upload their information and the DVA relies on its advisory board represented by Christiane Paul, Roy Ascott or Jorge La Ferla. Let me clarify that the DVA represents the scientific selection of approximately five hundred artists of approximately five thousand evaluated artists. The policy, whether an artist is qualified to become a member, is, "the number of exhibitions, publications (at least five), awards and public presentations; we also ascribe high importance to artistic inventions like innovative interfaces, displays or software."

The main challenge that existed, and still exists, during the last fifteen years is the establishment, maintenance and advancement of the social corpus, consisting of hundreds of living individuals: artists, whose affiliation is not automatically assumed since the DVA is not defined like other projects, who focus on a festival or a collection.



In addition to searches of themes, Media Art documentation should also admit questions of gender, track the movement of technical staff from lab to lab, technical inventions pertaining to art, the destinations of public and private funds allocated to research. The hybrid character of media art requires a shift of the paradigm towards an orientation of process and context recording, which includes more and more the capture of the audience experience. Media Art documentation becomes a resource that facilitates research on the artists and their work for students and academics, who, it is hoped – now in a new Facebook-like communication structure – will contribute to expanding and updating the information. In this way, documentation changes from a one-way archiving of key data to a proactive process of knowledge transfer.

Now, together with an important unknown art collection, the Göttweig print collection, representing 30 thousand prints emphasizing Renaissance and Baroque works and a library of 150,000 volumes going back to the 9th century, like the Sankt Gallen Codex, the Database of Virtual Art strives to achieve the goal of a deeper media art historical cross pollination. Reaching to the present day, the print collection has grown to be the largest private collection of historical graphic art in Austria. Just as the Media Art Histories conference series bridges a gap, the combination of the two and other databases hopes to enable further historic references and impulses. The collection also contains proofs of the history of optical image media, intercultural concepts, caricatures, illustrations of landscapes in panoramic illustrations. For the future, this may provide resources for a broader analysis of media art.

The collection is being made public and researched through four strategies:

- a.) The 'Scientific Facsimile': Our Digitization Center digitizes with up to 72 million pixels. The detailed digitization of this beautiful hand of a colleague seems already a bit impolite.
- b.) The concept of Virtual Exhibitions (now adopted by main museums) addresses, since 2006, the public with online exhibitions like *Venetian Views*. Virtual exhibitions are divided into sub themes and enriched with different picture formats, literature and meta data.
- c.) Cinema Screen sized projections, give new access to details. Digitized prints can be connected in filmic fly-throughs allowing travel through time and space.
- d.) Fortunately, we have the unique situation to have the large media art archive next to a historic art collection: the Collection will be further networked with archives of contemporary media art via keywording.

Of course, you know that keywording can be bridge building too! The hierarchical Thesaurus of the DVA constitutes an approach to systemize the field of Digital Art: out of the Getty Arts & Architecture Thesaurus and the subject catalogue of the Warburg Library in London, keywords were selected which also have relevance in media art. On the other side, out of the most common used terms from media festivals like Ars Electronica, ISEA, Transmediale etc., new keywords were empirically selected. Important innovations such as 'interface' or 'genetic art' have been considered as well as keywords that play a role in traditional arts such as 'body', 'landscape' or 'illusion' and thus have a bridge-building function. It was important to limit the number to approximately three hundred and fifty words so that members of the database can assign, use, and keyword their works without great study of a too complex index. The categories led to natural overlapping, so that the hybrid artworks can be captured through clustering. Important for us was the thematical usability for the humanities: we wanted to avoid something only new, separated from our cultural history.

Let me finish with remarks on the challenging and serious situation of media art research today. With the DVA involved in the field of media art tool development from its beginning, we witnessed the crisis of documentation during the last few years. Since the foundation of the *Database of Virtual Art* (1999 – 2011 and ongoing), a number of online archives have arisen: *Langlois Foundation* in Montreal (1999 - 2008), *Netzspannung* at the Fraunhofer Institute (2001 - 2004), or *MedienKunstNetz* at ZKM (2004 - 2006), the *Boltzmann Institute for Media Art Research* in Linz (2005 - 2009). All these major projects of the field terminated, their funding expired, or they lost key researchers, like V2 in Rotterdam (2001 - ongoing). In this way, the originated scientific archives, which more and more often represent the only remaining contextualized image source of the works, do not only lose their significance for research and preservation, but in the meantime partly disappear from the web. Not only the media art itself, but also its scientific documentation fades, meaning that future generations will not be able to get an idea of the art of our time. Even the Europeana, a large but under-funded project for Europe-wide networks of digital collection documentation is rendered meaningless if the foundation, the archives themselves, are not continued. To put it another way: till now no sustainable strategy exists. If we take a look on media art research over the last 15 years then it is clear: what we need is a concentration of high quality scholarly documentation as well as a huge expansion of strength and initiative. 1.) In the field of documentation – systematic preservation campaigns do not exist so far – it is essential to unite the most important lessons learned and strategies developed by initiatives either existing or abandoned under the single roof of an international institution, that can guarantee persistent existence, such as the Library of Congress or an equivalent European or Asian institution. It would need to be supported with adequate expertise from the network of important archives and initiatives – this could be the best way to protect documentations from being lost. 2.) But also the establishment of an appropriate research institution bringing together the best heads of the field would be necessary. 3.) The European Commission expressed the goal to double funds for pilot projects in interdisciplinary fundamental research! But this is not enough: for up to date digital humanities, the funding structures must be internationalized in ways similar to those enabling modern astronomy, genomics and climatology. In order to create enough momentum and the necessary sustainability, responsible sponsors like NSF, DFG, the EU, etc. have to ensure international long-term sustainable structures. Only when we develop systematic and concentrated strategies of collecting, preservation and research we will be able to fulfill the task which digital culture demands in the 21st Century. In astronomy, the funding agencies developed and modernized their systems towards sustainability. The virtual observatory infrastructure is funded on an on-going basis and there is international co-ordination between a dozen or so countries that produce astronomical data.

For Media Art Research, a commitment by the best experts from the field is needed in a long-term occupation. Let's recall the enormous and sustaining infrastructure that was developed for traditional artistic media, painting, sculpture, architecture, even film, photography and their corresponding archives over the course of the last century. What is needed is an appropriate structure to preserve at least the usual one to six per cent of present media art production, the best works. If we compare the world-wide available budget for traditional art forms with the one for digital culture then we understand how inadequate the support for our present digital culture, the most complex material based art, is; it is almost statistically immeasurable. The faster this essential modification to our cultural heritage record can be carried out, the smaller the gap in the cultural memory; shedding light on the dark years, which started about 1960 and lasts till now.

Hearing that there are experts of contemporary (old media art, sculpture, painting etc) that try to exclude the art of our time with the widest need is sad and ironically, as we learned from Shanken, Cubitt and Thomas, the exponents of an exclusion of media art justify this by its connection with technology.

This confession truly is a disaster, not so much for the interests of those people, but for the tax paying public, who deserves the right to be enabled to think about our time through media art. It might be 'blindness,' but it seems more a desire to keep life easy and save the time needed to understand the immense complexity of media art and its preservation needs. This ignorance is not something we should just tolerate: it means that although our societies – the political, financial, and cultural – are more and more driven by modern technologies, the art market, a number of biennales and most 'contemporary art museums' deny the public, which pays their bills, the needed aesthetic and intellectual confrontation with the art of our time. The attempt to separate art from its time is not new, it is also comparable with earlier movements of world escapism, like the forms of 19th century historicism; but our modern societies need to be enabled to reflect on their time and future and, as we know, media art plays a seminal role in that process.

As we see, Media Art needs as many bridges as possible: conferences, new scientific tools like databases and text repositories, new strategies for documentation and visual analysis of complex data, new curricula for the next generation of teachers and collectors. Maybe in a near future we can create collective tools, as represented in Christa Sommerer and Laurent Mignonneau's work *The Living Web*, which generates a spatial information sphere from search engines for web images in a CAVE. The work represents a new instrument for visual analysis, with the option of comparing up to one thousand images in a scientific discussion. Captivating new visualization tools could provide access to the breadth of digital cultural production, which, coupled with the depth of historical optical media, can enable new unpredictable understandings of today's image revolution.